

ABSTRACT OF THE DISCLOSURE

The present invention provides a substrate processing apparatus and a substrate processing method
5 suitable for use in an etching apparatus which etches a thin film formed on a peripheral portion of a substrate. The present invention also provides a substrate processing apparatus and a substrate processing method suitable for use in a cleaning apparatus which performs a cleaning process on
10 a substrate which has been etched. The substrate processing apparatus for use in etching includes a substrate holder 11 for holding a substrate W substantially horizontally and rotating the substrate W, and a processing liquid supply unit 15 for supplying a processing liquid onto a peripheral
15 portion of the substrate W which is being rotated in such a manner that the processing liquid is stationary with respect to the substrate W. The substrate processing apparatus for use in cleaning a substrate includes a substrate holder 54 for holding a substrate W substantially horizontally and
20 rotating the substrate W, and a cleaning liquid supply unit 53 having a cleaning liquid outlet 53a which is oriented from a center of the substrate W toward a peripheral portion of the substrate W with an elevation angle of not more than 45° from a surface of the substrate W. The cleaning liquid
25 supply unit 53 supplies a cleaning liquid to the surface of the substrate W at a flow velocity of not less than 0.1 m/s.